BPWCB: Battery Powered Waste Collector Boat

Boat Material: Stainless Steel

Length x Weight: 2m x 3m

Height: 0.5m

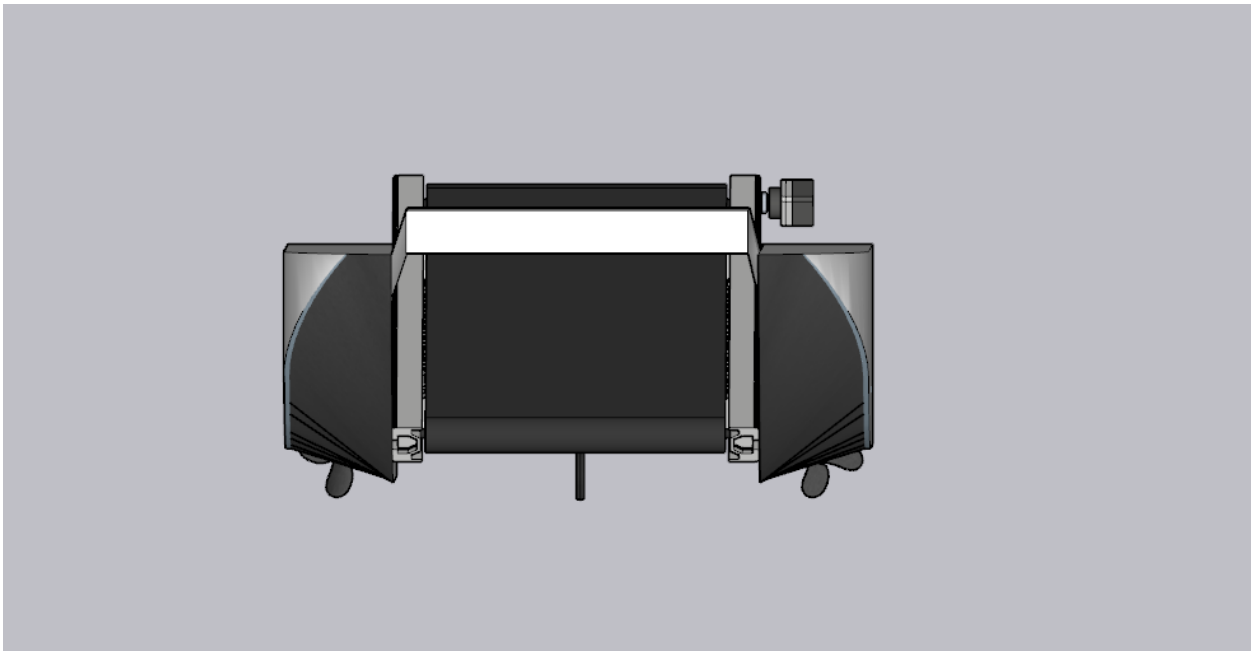
Operational Speed: 10-15km per hour

Specifications: (CURRENT/ NOT FINAL)

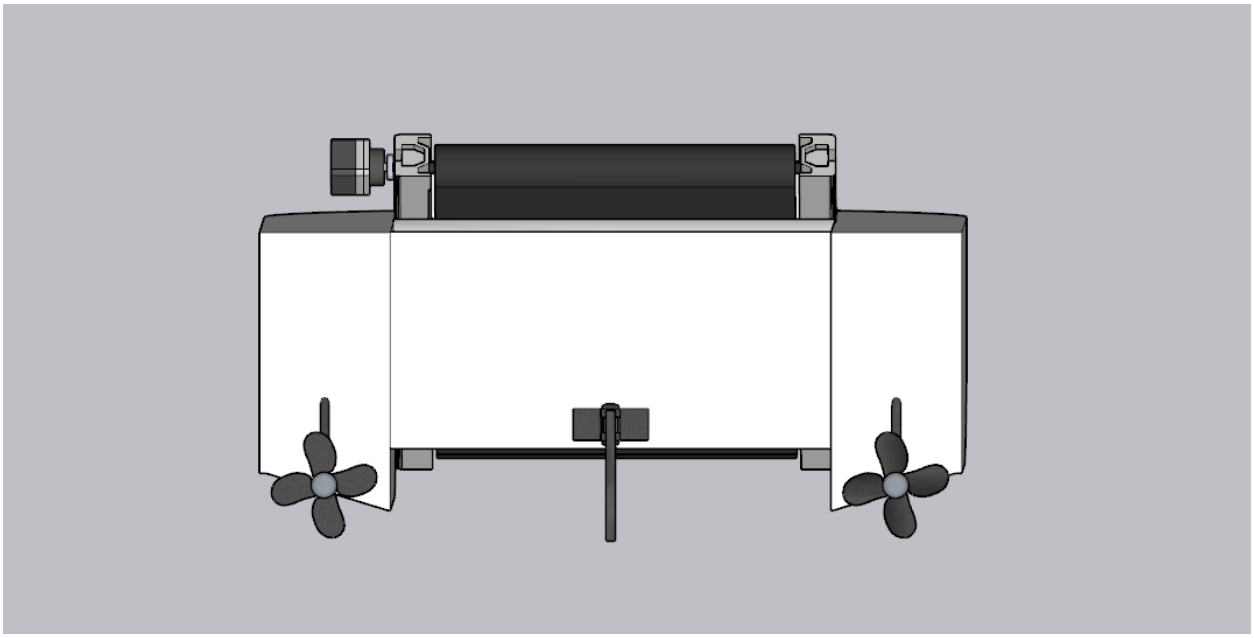
- Battery (Lithium Ion)
- Arduino Mega
  - GPS
  - Memory (SD card)
  - Ultrasonic Sensor (SONAR)
  - IMU Sensor
- Conveyor Belt
- DC Motor
- Garbage Bin (Stainless Steel / removable)
- Rudder (servo)
- Propeller
- Power bank (can power for 9-10 hrs.)

Blueprint:

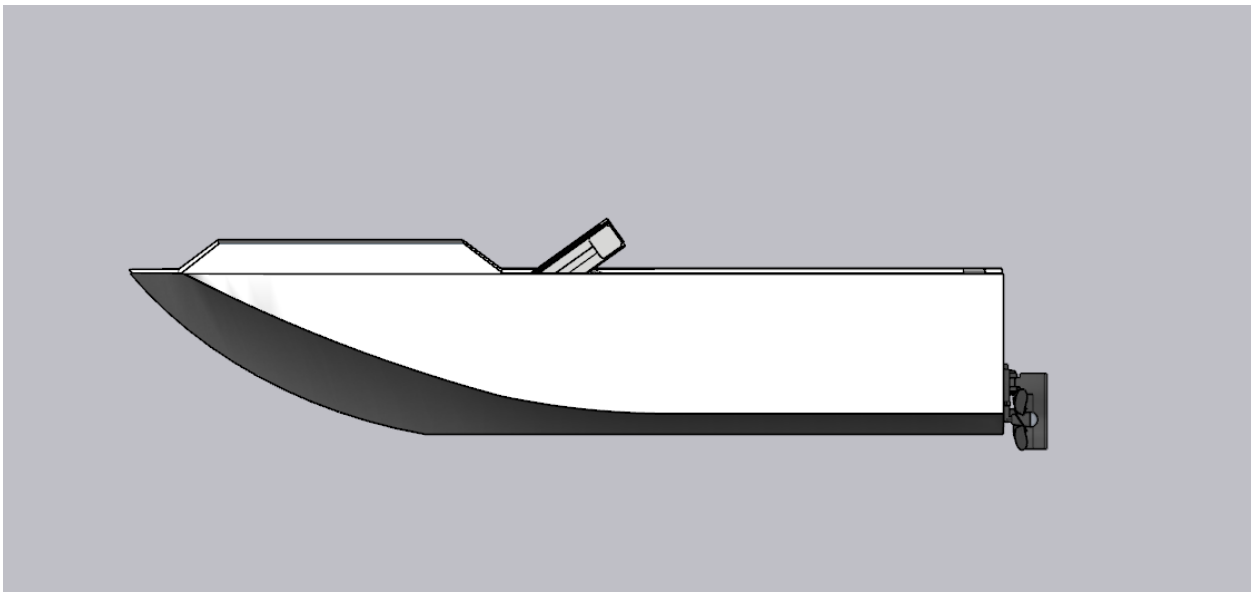
Front View



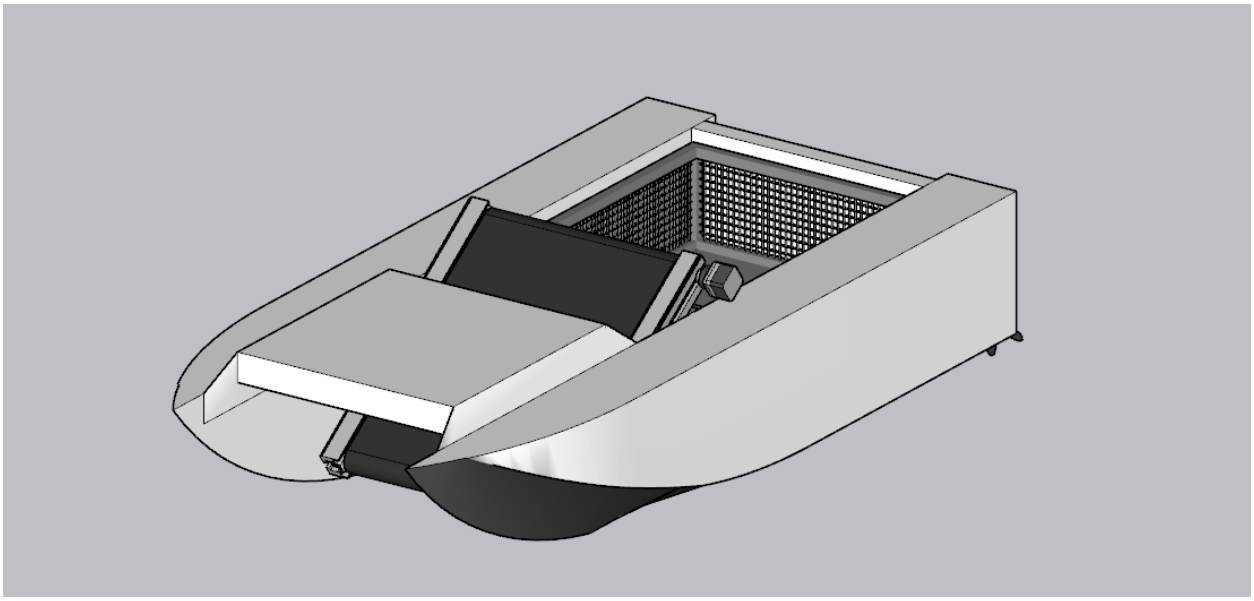
Back View



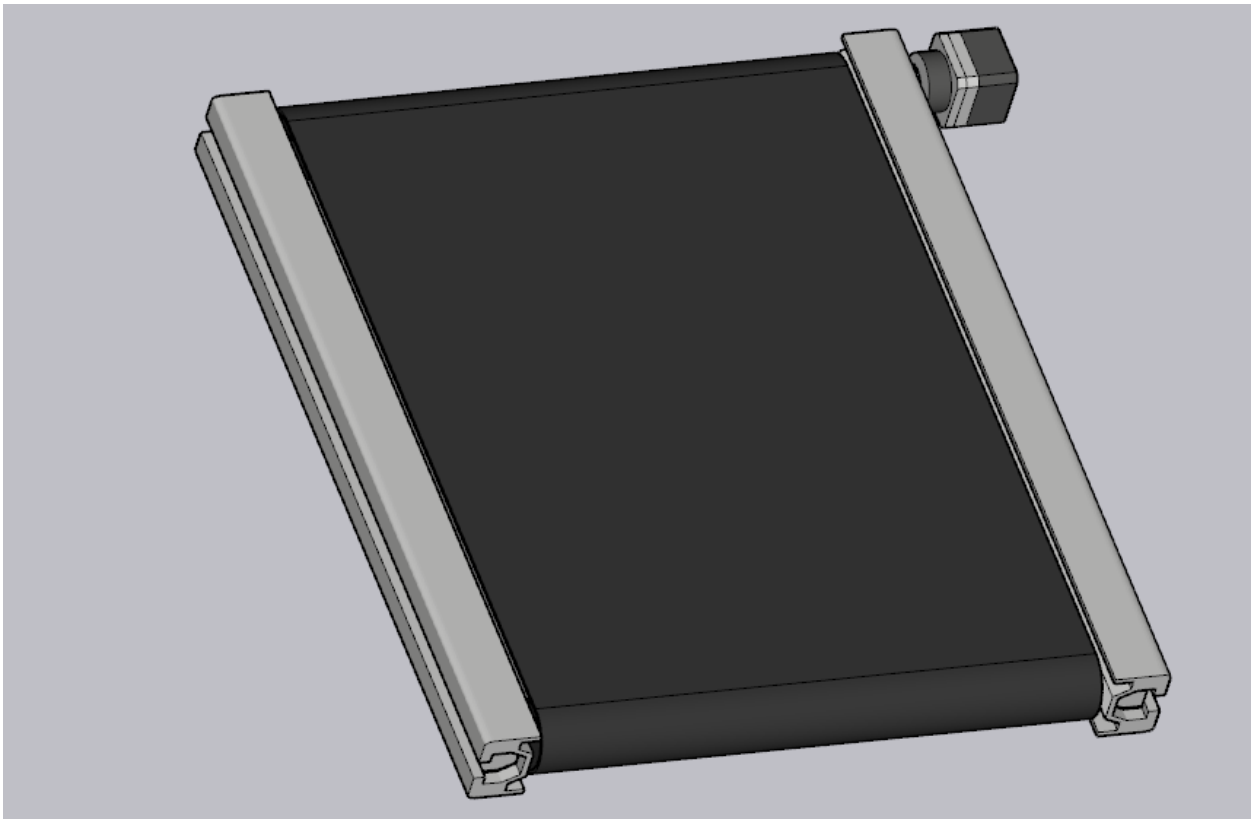
Side View

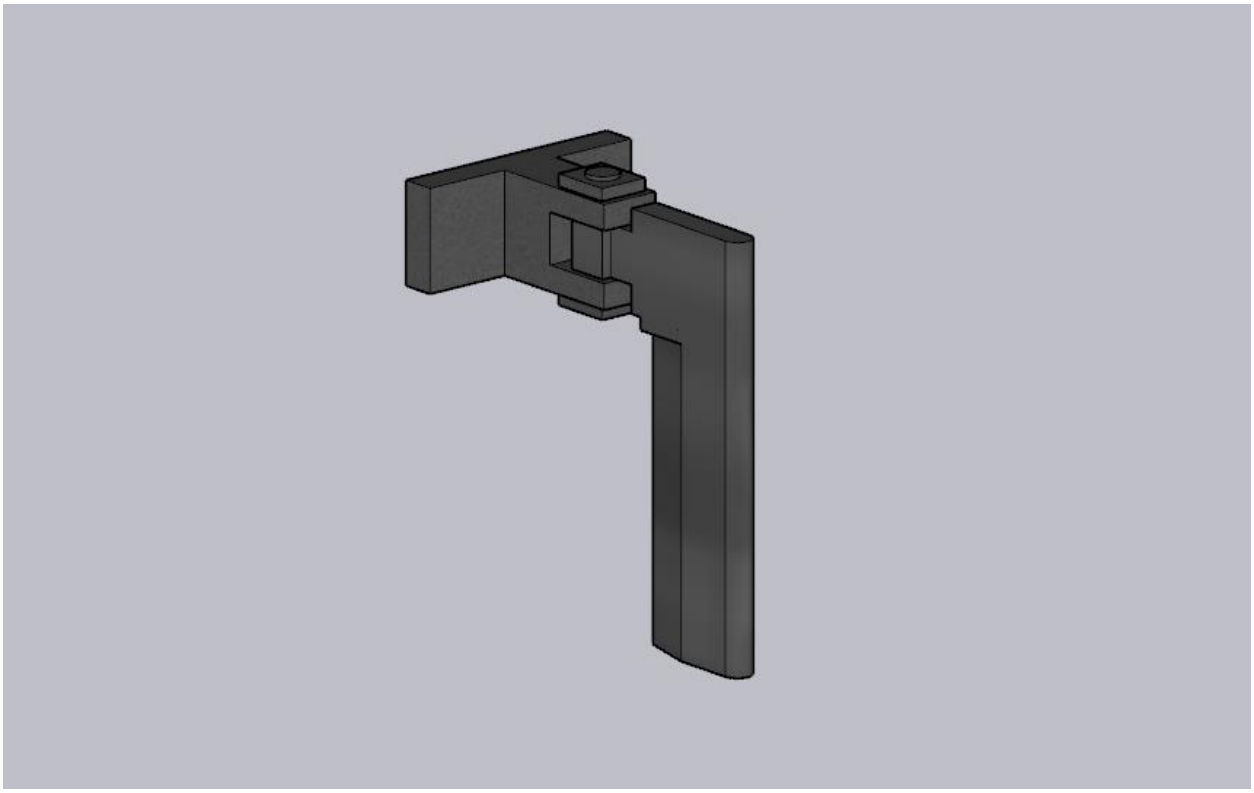


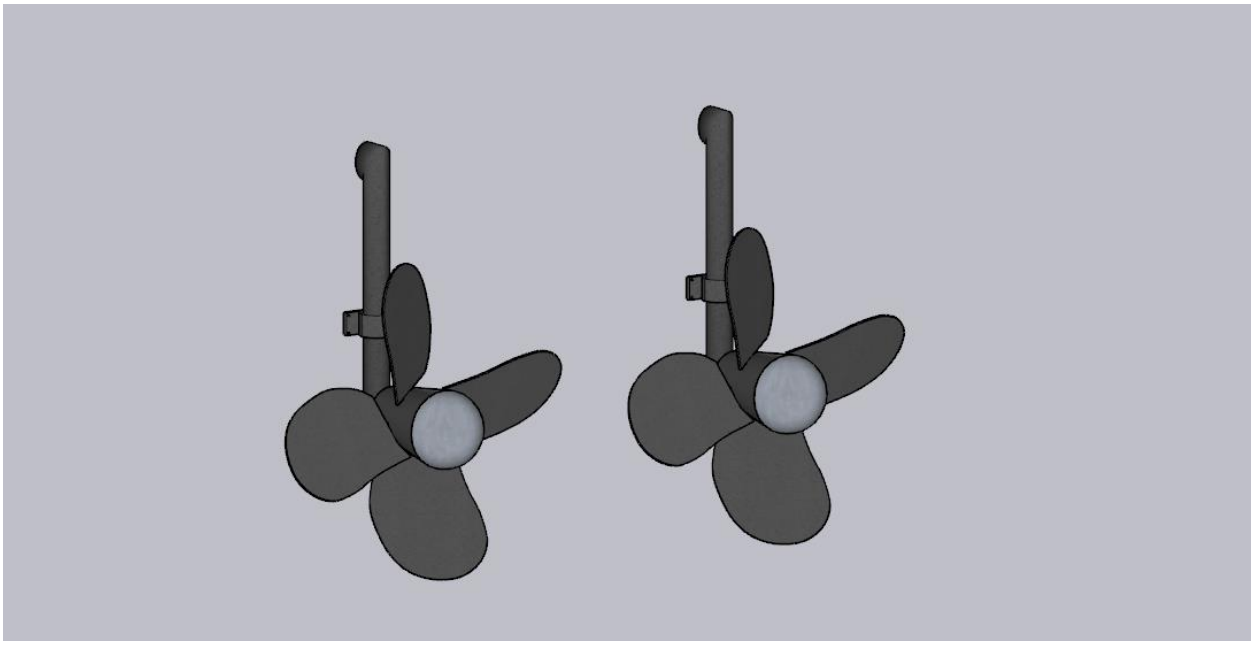
Top View

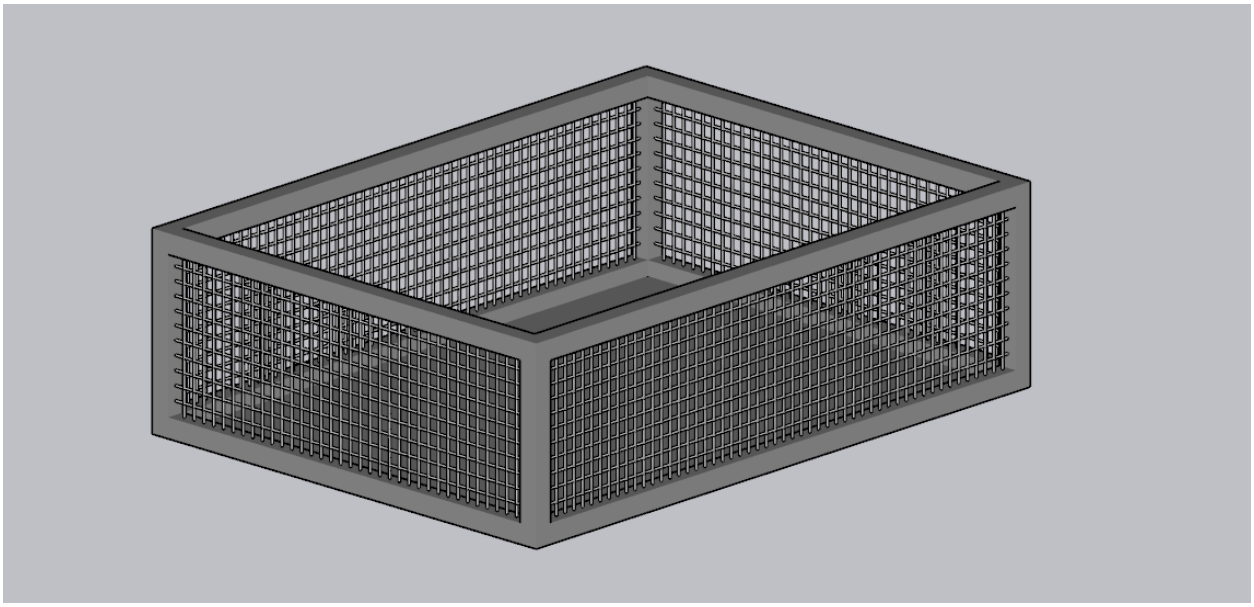


Conveyor Belt / Rudder (Servo) / Propeller / Garbage Bin



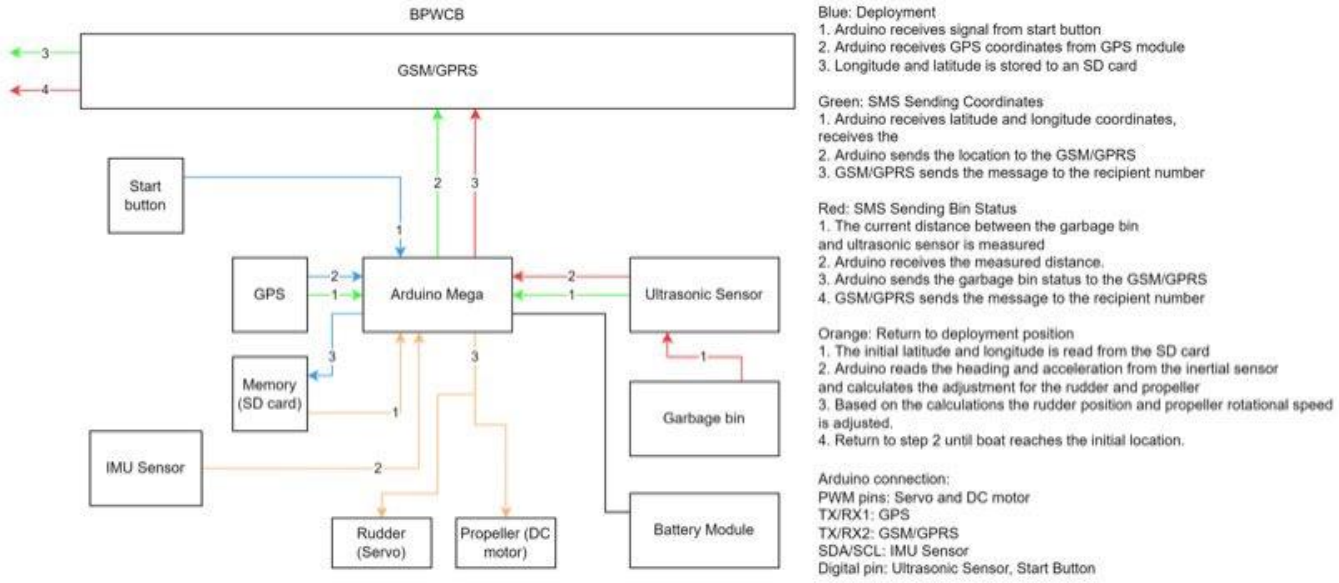




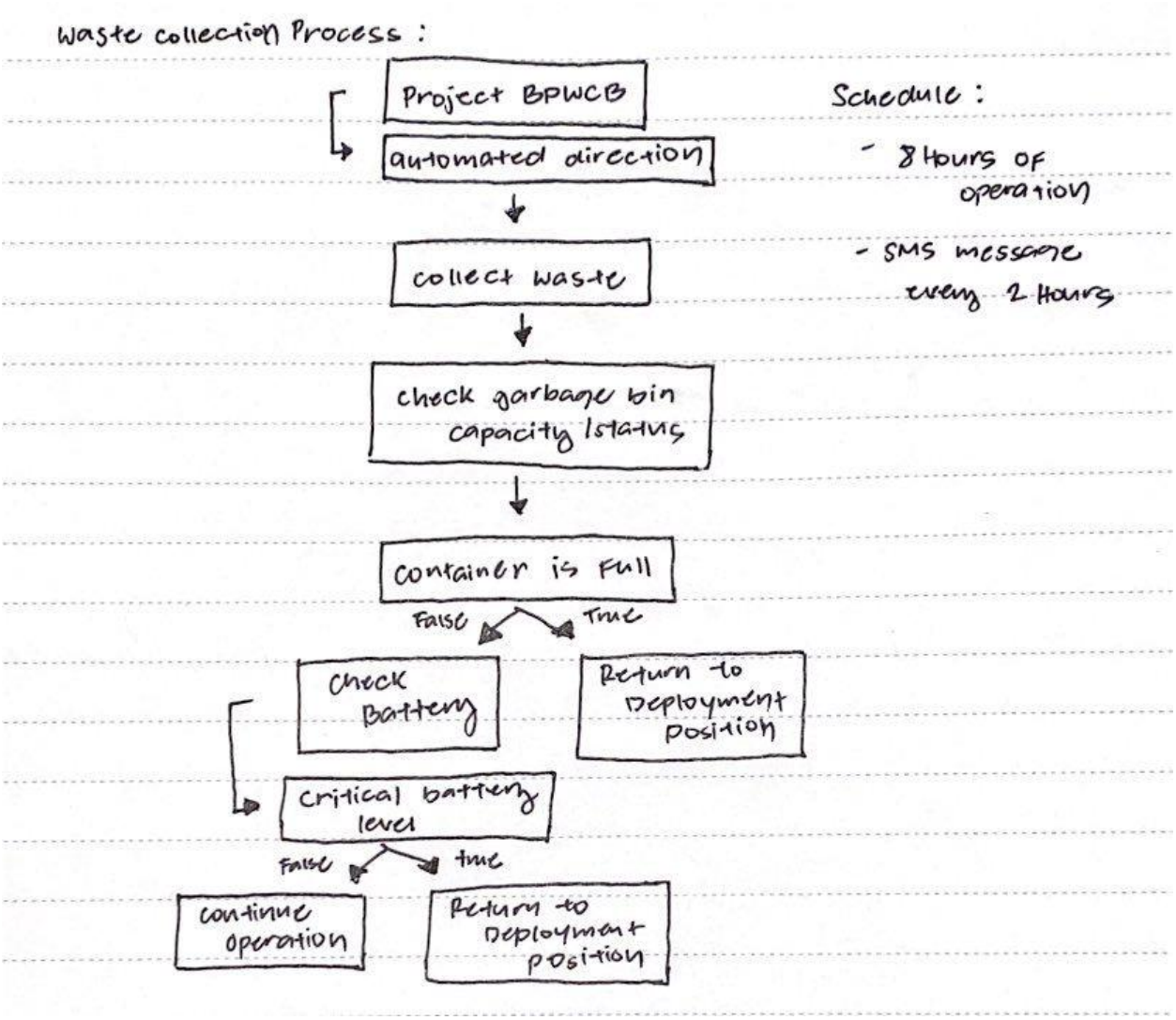


Other Details:

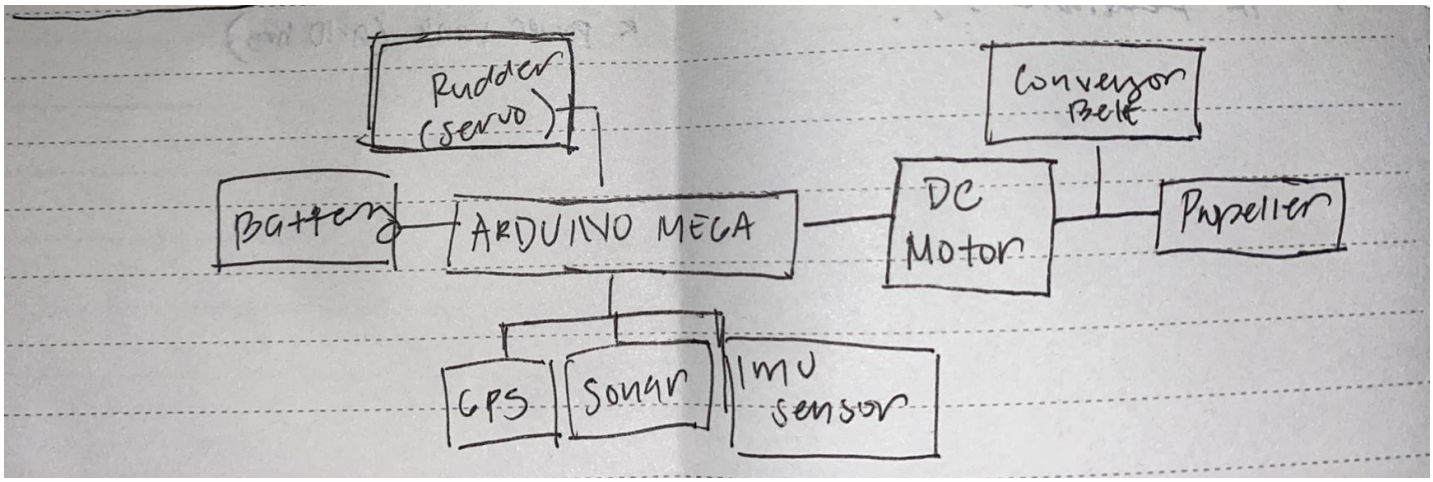
Arduino System



Waste Collection Process:

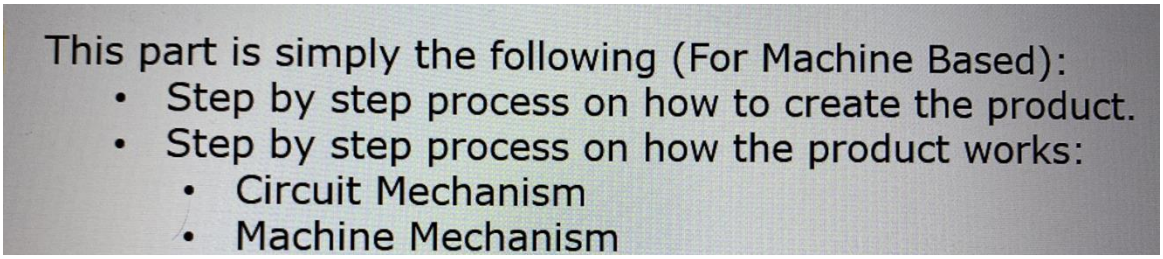


Sample Machine Mechanism:

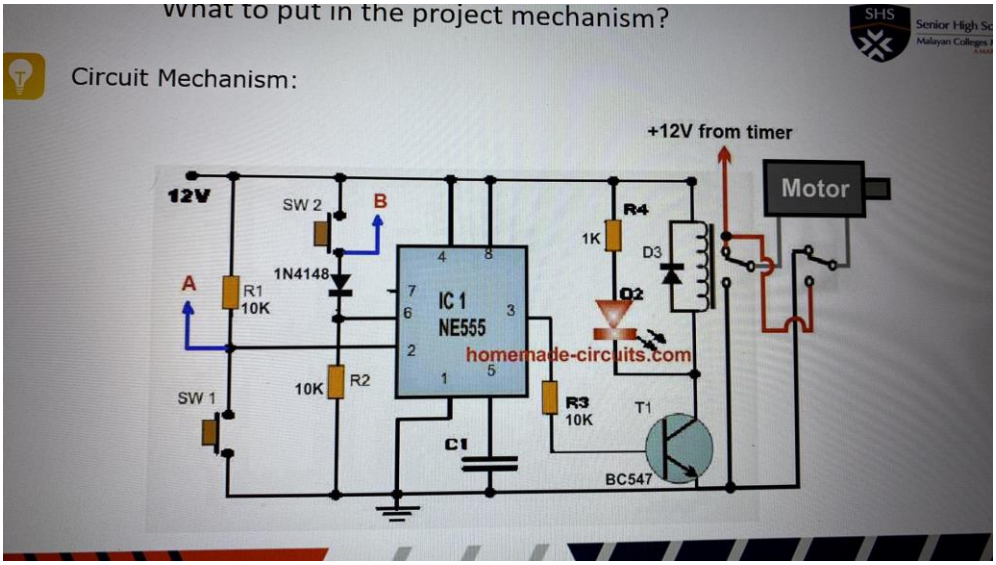


INFORMATION NEEDED:

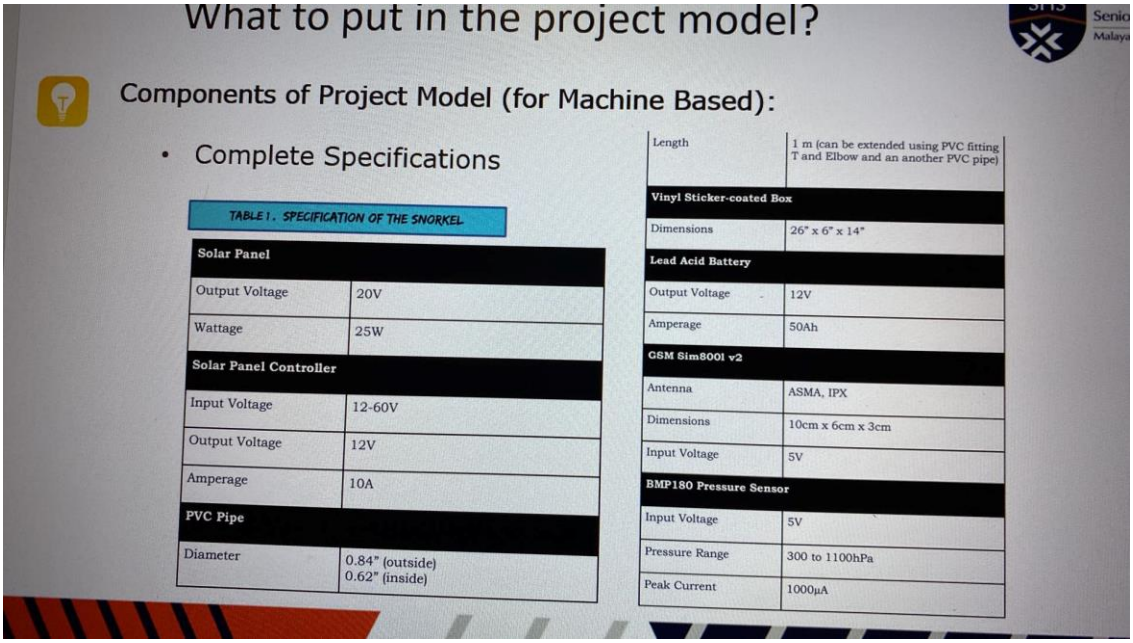
Project Mechanism



- Circuit Mechanism (example from our teacher in capstone)



Complete Specification



Battery Protection (what to do in order battery won’t get wet during operation)